Predicted amino acid sequence of human BLNK-1: 1-456

MDKLNKITVPASQKLRQLQKMVHDIKNNEGGIMNKIKKLKVKAPPSVPRRDYASESPADEEEQ
WSDDFDSDYENPDEHSDSEMYVMPAEENADDSYEPPPVEQETRPVHPALPFARGEYIDNRSSQ
RHSPPFSKTLPSKPSWPSEKARLTSTLPALTALQKPQVPPKPKGLLEDEADYVVPVEDNDENY
IHPTESSSPPPEKAPMVNRSTKPNSSTPASPPGTASGRNSGAWETKSPPPAAPSPLPRAGKKP
TTPLKTTPVASQQNASSVCEEKPIPAERHRGSSHRQEAVQSPVFPPAQKQIHQKPIPLPRFTE
GGNPTVDGPLPIFSSNSTISEQEAGVLCKPWYAGACDRKSAEEALHRSNKDGSFLIRKSSGHD
SKQPYTLVVFFNKRVYNIPVRFIEATKQYALGRKKNGEEYFGSVAEIIRNHQHSPLVLIDSQN
NTKDSTRLKYAVKVS*

Fig. 1

cDNA Sequence of human BLNK-1:

Open Reading Frame: 154 - 1524

CCTTCGTGGCCGCAGCCTGCACTCTCAGAAATCAGACTTGAGTGGCCGGAACCCTTGAGACCA
GAGGCTTACCATGCTGCTCCCTAGGAGGGCCAGGAACTGCTGACGTGACCACTGGACAGTTAT
TCGTGTCTCTTACAATTACCAAACAGAATGGACAAGCTTAATAAAATAACCGTCCCCGCCAGT
CAGAAGTTGAGGCAGCTTCAAAAGATGGTCCATGATATTAAAAACAATGAAGGTGGAATAATG
AATAAAATCAAAAAGCTAAAAGTCAAAGCACCTCCAAGTGTTCCTCGAAGGGACTACGCTTCA
GAGAGCCCCGCTGACGAAGAGGAGCAGTGGTCCGATGACTTTGACAGCGACTATGAAAATCCA
GATGAGCACTCGGACTCAGAGATGTACGTGATGCCCGCCGAGGAGAACGCTGATGACAGCTAC
GAGCCGCCTCCAGTAGAGCAGGAAACCAGGCCGGTTCACCCAGCCCTGCCCTTCGCCAGAGGC
GAGTATATAGACAATCGATCAAGCCAGAGGCATTCCCCACCCTTCAGCAAGACACTTCCCAGT
AAGCCCAGCTGGCCTTCAGAGAAAGCAAGGCTCACCTCCACCCTGCCGGCCCTGACTGCTTTG
CAGAAACCTCAAGTCCCACCCAAACCCAAAGGCCTCCTTGAGGATGAGGCTGATTATGTGGTC
CCCGTGGAAGATAATGATGAAAACTATATTCATCCCACAGAAAGCAGTTCACCTCCACCTGAA
AAAGCTCCCATGGTGAATAGATCAACCAAGCCAAATTCCTCAACGCCCGCCTCTCCTCCAGGA
ACAGCTTCAGGTCGAAACAGTGGGGCCTGGGAAACCAAGTCACCTCCACCAGCTGCACCATCC
CCGTTGCCACGGGCCGGGAAAAAACCAACGACACCACTGAAGACAACTCCAGTTGCCTCTCAA
CAGAATGCTTCAAGTGTTTGTGAAGAAAAACCTATACCTGCTGAACGCCACCGAGGGTCAAGT
CACAGACAAGAAGCTGTGCAGTCACCAGTGTTTCCTCCTGCCCAGAAACAAATCCACCAAAAA
CCCATACCTCTGCCAAGATTTACAGAAGGGGGAAACCCAACTGTGGATGGGCCCCTACCCAGC
TTTTCATCTAATTCCACTATTTCAGAACAGGAAGCTGGCGTTCTCTGCAAGCCATGGTATGCT
GGAGCCTGTGATCGAAAGTCTGCTGAAGAGGCATTGCACAGATCAAACAAGGATGGATCATTT
CTTATTCGGAAAAGCTCTGGCCATGATTCCAAACAACCATATACACTAGTTGTATTCTTTAAT
AAGCGAGTATATAATATTCCTGTGCGATTTATTGAAGCAACAAAACAATATGCCTTGGGCAGA
AAGAAAAATGGTGAAGAGTACTTTGGAAGTGTTGCTGAAATCATCAGGAATCATCAACATAGT
CCTTTGGTTCTTATTGACAGTCAGAATAACACAAAAGATTCCACCAGACTGAAGTATGCAGTT
AAAGTTTCATAAAGGGGGAAAAAAAAGATCAATACCATTGCTTCAGACACTTTCCCAAAGTTT
CTCCTTTTGAGAAAAAGTCCCAAAACTTCATATTTTGGATTATGAATCATCCAGTAATAAAAT
GGAAGATGGAGTCAGCTATTGAAGTGGTCATCCATTTCTTTTTAAGAAGCTCATGTGGACTTG
TTCTATTGCCTGACCTGATGAACTGTTAATATCTGGTGAGGTTGAGTTATCATGCTACTAATA
TTTTCCAAATAAATATTTTTATTTTTAAAAAAAAAAAAAAAA

Fig. 2

OPEN READING FRAME OF HUMAN BLNK 2

Met Asp Lys Leu Asn Lys Ile Thr Val Pro Ala Ser Gln Lys Leu Arg
1 5 10 15

His Ile Lys Asn Asn Glu Gly Gly Ile Met Asn Lys Ile Lys Lys Leu
20 25 30

Lys Val Lys Ala Pro Pro Ser Val Pro Arg Arg Asp Tyr Ala Ser Glu
35 40 45

Ser Pro Ala Asp Glu Glu Glu Gln Trp Ser Asp Asp Phe Asp Ser Asp
50 55 60

Tyr Glu Asn Pro Asp Glu His Ser Asp Ser Glu Met Tyr Val Met Pro
65 70 75 80

Ala Glu Glu Asn Ala Asp Asp Ser Tyr Glu Pro Pro Pro Val Glu Gln
85 90 95

Glu Thr Arg Pro Val His Pro Ala Leu Pro Phe Ala Arg Gly Glu Tyr
100 105 110

Ile Asp Asn Arg Ser Ser Gln Arg His Ser Pro Pro Phe Ser Lys Thr
115 120 125

Leu Pro Ser Lys Pro Ser Trp Pro Ser Glu Lys Ala Arg Leu Thr Ser
130 135 140

Thr Leu Pro Ala Leu Thr Ala Leu Gln Lys Pro Gln Val Pro Pro Lys
145 150 155 160

Pro Lys Gly Leu Leu Glu Asp Glu Ala Asp Tyr Val Val Pro Val Glu
165 170 175

Asp Asn Asp Glu Asn Tyr Ile His Pro Thr Glu Ser Ser Ser Pro Pro
180 185 190

Pro Glu Lys Ala Pro Met Val Asn Arg Ser Thr Lys Pro Asn Ser Ser
195 200 205

Thr Pro Ala Ser Pro Pro Gly Thr Ala Ser Gly Arg Asn Ser Gly Ala
210 215 220

Trp Glu Thr Lys Ser Pro Pro Pro Ala Ala Pro Ser Pro Leu Pro Arg
225 230 235 240

Ala Gly Lys Lys Pro Thr Thr Pro Leu Lys Thr Thr Pro Val Ala Ser
245 250 255

Gln Gln Asn Ala Ser Ser Val Cys Glu Glu Lys Pro Ile Pro Ala Glu
260 265 270

Arg His Arg Gly Ser Ser His Arg Gln Glu Ala Val Gln Ser Pro Val
275 280 285

Phe Pro Pro Ala Gln Lys Gln Ile His Gln Lys Pro Ile Pro Leu Pro
290 295 300

Arg Phe Thr Glu Gly Gly Asn Pro Thr Val Asp Gly Pro Leu Pro Ser
305 310 315 320

Phe Ser Ser Asn Ser Thr Ile Ser Glu Gln Glu Ala Gly Val Leu Cys
325 330 335

Lys Pro Trp Tyr Ala Gly Ala Cys Asp Arg Lys Ser Ala Glu Glu Ala
340 345 350

Leu His Arg Ser Asn Lys Asp Gly Ser Phe Leu Ile Arg Lys Ser Ser
355 360 365

Gly His Asp Ser Lys Gln Pro Tyr Thr Leu Val Val Phe Phe Asn Lys
370 375 380

Arg Val Tyr Asn Ile Pro Val Arg Phe Ile Glu Ala Thr Lys Gln Tyr
385 390 395 400

Ala Leu Gly Arg Lys Lys Asn Gly Glu Glu Tyr Phe Gly Ser Val Ala
405 410 415

Glu Ile Ile Arg Asn His Gln His Ser Pro Leu Val Leu Ile Asp Ser
420 425 430

Gln Asn Asn Thr Lys Asp Ser Thr Arg Leu Lys Tyr Ala Val Lys Val
435 440 445

Ser

Fig. 3B

cDNA OF HUMAN BLNK 2

```
CCTTCGTGGC CGCAGCCTGC ACTCTCAGAA ATCAGACTTG AGTGGCCGGA ACCCTTGAGA     60
CCAGAGGCTT ACCATGCTGC TCCCTAGGAG GGCCAGGAAC TGCTGACGTG ACCACTGGAC    120
AGTTATTCGT GTCTCTTACA ATTACCAAAC AGAATGGACA AGCTTAATAA AATAACCGTC    180
CCCGCCAGTC AGAAGTTGAG GCATATTAAA AACAATGAAG GTGGAATAAT GAATAAAATC    240
AAAAAGCTAA AAGTCAAAGC ACCTCCAAGT GTTCCTCGAA GGGACTACGC TTCAGAGAGC    300
CCCGCTGACG AAGAGGAGCA GTGGTCCGAT GACTTTGACA GCGACTATGA AAATCCAGAT    360
GAGCACTCGG ACTCAGAGAT GTACGTGATG CCCGCCGAGG AGAACGCTGA TGACAGCTAC    420
GAGCCGCCTC CAGTAGAGCA GGAAACCAGG CCGGTTCACC CAGCCCTGCC CTTCGCCAGA    480
GGCGAGTATA TAGACAATCG ATCAAGCCAG AGGCATTCCC CACCCTTCAG CAAGACACTT    540
CCCAGTAAGC CCAGCTGGCC TTCAGAGAAA GCAAGGCTCA CCTCCACCCT GCCGGCCCTG    600
ACTGCTTTGC AGAAACCTCA AGTCCCACCC AAACCCAAAG GCCTCCTTGA GGATGAGGCT    660
GATTATGTGG TCCCCGTGGA AGATAATGAT GAAAACTATA TTCATCCCAC AGAAAGCAGT    720
TCACCTCCAC CTGAAAAAGC TCCCATGGTG AATAGATCAA CCAAGCCAAA TTCCTCAACG    780
CCCGCCTCTC CTCCAGGAAC AGCTTCAGGT CGAAACAGTG GGGCCTGGGA AACCAAGTCA    840
CCTCCACCAG CTGCACCATC CCCGTTGCCA CGGGCCGGGA AAAAACCAAC GACACCACTG    900
AAGACAACTC CAGTTGCCTC TCAACAGAAT GCTTCAAGTG TTTGTGAAGA AAAACCTATA    960
CCTGCTGAAC GCCACCGAGG GTCAAGTCAC AGACAAGAAG CTGTGCAGTC ACCAGTGTTT   1020
CCTCCTGCCC AGAAACAAAT CCACCAAAAA CCCATACCTC TGCCAAGATT TACAGAAGGG   1080
GGAAACCCAA CTGTGGATGG GCCCCTACCC AGCTTTTCAT CTAATTCCAC TATTTCAGAA   1140
CAGGAAGCTG GCGTTCTCTG CAAGCCATGG TATGCTGGAG CCTGTGATCG AAAGTCTGCT   1200
GAAGAGGCAT TGCACAGATC AAACAAGGAT GGATCATTTC TTATTCGGAA AAGCTCTGGC   1260
CATGATTCCA AACAACCATA TACACTAGTT GTATTCTTTA ATAAGCGAGT ATATAATATT   1320
CCTGTGCGAT TTATTGAAGC AACAAAACAA TATGCCTTGG GCAGAAAGAA AAATGGTGAA   1380
GAGTACTTTG GAAGTGTTGC TGAAATCATC AGGAATCATC AACATAGTCC TTTGGTTCTT   1440
ATTGACAGTC AGAATAACAC AAAAGATTCC ACCAGACTGA AGTATGCAGT TAAAGTTTCA   1500
TAAAGGGGGA AAAAAAAGAT CAATACCATT GCTTCAGACA CTTTCCCAAA GTTTCTCCTT   1560
```

Fig. 4A

TTGAGAAAAA GTCCCAAAAC TTCATATTTT GGATTATGAA TCATCCAGTA ATAAAATGGA 1620

AGATGGAGTC AGCTATTGAA GTGGTCATCC ATTTCTTTTT AAGAAGCTCA TGTGGACTTG 1680

TTCTATTGCC TGACCTGATG AACTGTTAAT ATCTGGTGAG GTTGAGTTAT CATGCTACTA 1740

ATATTTTCCA AATAAATATT TTTATTTTTA AAAAAAAAAA AAAAA 1785

Fig. 4B

Open reading frame of mouse BLNK.

MDKLNKITVPASQKLRQLQKMVHDIKNNEGGIMDKIKKLKVKGPPSVPRRDYALDSPAD
EEEQWSDDFDSDYENPDEHSDSEMYVMPAEETGDDSYEPPPAEQQTRVVHPALPFTRGEY
VDNRSSQRHSPPFSKTLPSKPSWPSAKARLASTLPAPNSLQKPQVPPKPKDLLEDEADYV
VPVEDNDENYIHPRESSPPPAEKAPMVNRSTKPNSSSKHMSPPGTVAGRNSGVWDSKS
SLPAAPSPLPRAGKKPATPLKTTPVPPLPNASNVCEEKPVPAERHRGSSHRQDTVQSPVF
PPTQKPVHQKPVPLPRFPEAGSPAADGPFHSFPFNLTFADQEGELLGKPWYAGACDRKFA
EEALHRSNKDGSFLIRKSFGHDSKQPYTLVAFFNKRVYNIPVRFIEATKQYALGKKKNGE
EYFGSVVEIVNSHQHNPLVLIDSQNNTKDSTRLKYAVKVS

Fig. 5

cDNA of mouse BLNK.

CTGTGGGTTGCTCGCAGAAGTCAGTTCCAGTGGCTTGAGTTCTTGAGGCCAGAGCCTT
ACCATGCTGCTCCCCAGGAAGTCCAGGAGCTGCTGACACCCCCCTGGACAGCGACAC
ATCCTCTCTCAAGAAAATGGACAAGCTGAATAAGATAACTGTCCCTGCCAGCCAGA
AGCTGAGACAGCTTCAAAAGATGGTCCATGATATTAAGAACAATGAAGGTGGAAT
AATGGACAAGATAAAAAAGCTAAAAGTCAAAGGCCCTCCAAGTGTTCCTCGAAGG
GACTATGCATTAGACAGCCCTGCAGATGAAGAGGAGCAGTGGTCAGATGACTTCGA
CAGTGACTATGAAAATCCAGATGAACATTCGGACTCCGAGATGTATGTGATGCCTGC
CGAGGAGACGGGCGACGATTCCTATGAACCGCCTCCCGCTGAGCAGCAGACACGGGT
GGTCCATCCAGCCCTGCCCTTCACGAGGGGCGAGTATGTAGATAATCGATCCAGCCA
GCGGCACTCTCCGCCCTTCAGCAAGACACTTCCCAGTAAGCCCAGCTGGCCTTCAGCG
AAAGCGAGGCTGGCCTCCACTCTGCCAGCCCCCAACTCTCTACAGAAGCCTCAAGTCC
CCCCCAAGCCCAAAGACCTCCTTGAGGATGAGGCTGATTATGTGGTCCCTGTGGAAG
ATAACGATGAAAACTATATCCATCCCAGAGAAAGTAGCCCGCCGCCTGCTGAGAAG
GCTCCCATGGTGAATAGATCAACCAAGCCAAACAGTTCCTCAAAGCACATGTCGCCT
CCAGGGACTGTCGCAGGTCGAAACAGTGGGGTCTGGGACTCCAAGTCATCTTTGCCT
GCCGCACCATCCCCACTACCACGGGCTGGGAAGAAGCCAGCTACACCACTTAAGACT
ACTCCCGTTCCTCCCCTACCGAATGCATCAAATGTTTGTGAAGAAAAGCCTGTTCCTG
CTGAGCGCCACCGAGGGTCTAGTCACAGACAAGACACTGTACAGTCACCAGTGTTTC
CTCCCACCCAGAAACCTGTCCATCAAAAGCCTGTACCCTTGCCAAGGTTCCCAGAAG
CGGGGAGCCCAGCTGCAGATGGACCGTTCCACAGCTTCCCATTTAATTTGACGTTTGC
AGACCAGGAGGGTGAACTGCTCGGTAAGCCCTGGTATGCTGGCGCCTGTGACCGCAA
GTTTGCTGAAGAGGCCTTGCACAGATCCAACAAGGATGGATCGTTTCTTATTCGGAA
GAGCTTTGGCCATGATTCCAAGCAGCCGTACACCCTAGTTGCGTTCTTTAACAAGCG
AGTGTATAATATTCCTGTACGGTTTATTGAAGCAACCAAACAGTATGCTTTGGGAA
AGAAGAAAAATGGTGAAGAGTACTTCGGAAGTGTTGTGGAAATCGTCAACAGTCA
TCAGCACAACCCCCTGGTTCTTATTGACAGTCAGAATAACACGAAAGATTCCACGAG
ACTGAAATATGCTGTGAAGGTTTCATAACGATACCACGGTTCCAGACATGTCCTCTG
TTTCTTCTTTTGAGAAAACATCATATTCTGGCTATGACTCCTCAGCAGTAAGAGAGA
AAAGATGAATGAAGCCACTGAGGCTTCGTGAATGAATGAATCTACTCCTTCCTAGG
GCGTTCACACGAGCTTTTCTATCACCTGACCTGACGAAGTCATAGCTGGGGAGGTTCG
GTTACTATGATAC

Fig. 6

Schematic of BLNK and BLNK-s.

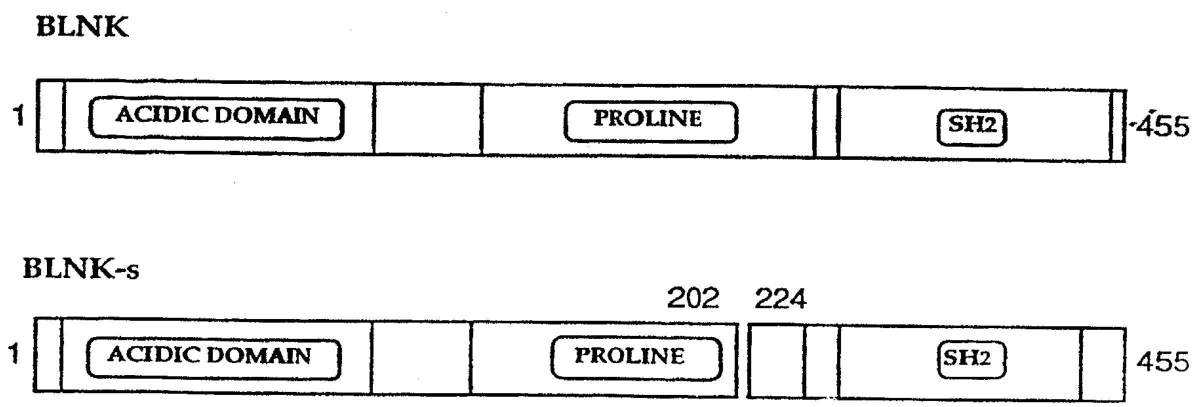

Fig. 7